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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/590,462 | 06/09/2000 | Marco Racanelli | 02SPE133P | 1783 |
| 25700 | 7590 | 02/01/2005 | EXAMINER | |
| FARJAMI & FARJAMI LLP 26522 LA ALAMEDA AVENUE, SUITE 360 MISSION VIEJO, CA 92691 | | | DIAZ, JOSE R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2815 | |

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/590,462

Applicant(s)

RACANELLI ET AL.

Examiner

José R. Díaz

Art Unit

2815

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 11 January 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ they raise the issue of new matter (see Note below);
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1, 2, 4-9, 17-22, 26-29 and 31-37.

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☐ Other: _____

Tom Thomas

Continuation of 5. does NOT place the application in condition for allowance because: Applicant's arguments are not persuasive.

First, Applicant argues that the finality of the last Office Action is improper since the examiner relied on a new reference, which was not previously cited (page 2 of remarks). However, this argument is not persuasive. MPEP 706.07(a) clearly states that "any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement." In the instant case, Applicant's amendment filed on August 13, 2004 necessitated the new ground of rejection presented in the last Office action, and thus the finality of the last Office Action is proper.

Second, Applicant argues that Yamazaki fails to teach the limitation of selecting a first peak dopant concentration and a first implant energy to optimize at least one of capacitance, leakage current, and tuning range of the device (pages 4-5 of remarks). However, this argument must fail since Yamazaki, as pointed out in the last rejection, indeed teaches the optimization of at least the capacitance of the device (col. 2, lines 45-46). Thus, Yamazaki makes obvious the claimed limitation.

Third, Applicant argues that Yamazaki does not teach a varactor device (page 6 of remarks). However, this argument is not persuasive. Applicant clearly acknowledges that a common practice in the art is to the emitter-base junction of any bipolar transistor as a varactor (page 1, lines 28-29 of the Specification). Thus, Yamazaki makes obvious this limitation by showing a bipolar transistor having emitter-base junction, which is commonly used as a varactor.

Fourth, Applicant argues that Yamazaki fails to teach the claimed sequence of steps of implanting ions in the epitaxial layer (page 6 of remarks). However, although it is conceded that Yamazaki is silent with respect to this limitation, it is noted that Yamazaki achieves the same result as claimed by Applicant of optimizing at least the capacitance of the device. The court has held that selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946).

Fifth, Applicant argues that Yamazaki fails to teach the limitation of minimizing the base resistance of the device (pages 6-7). However, it seems that Applicant has overlooked the express teaching of Yamazaki: "decrease in base resistance" (col. 2, line 45).

Therefore, Yamazaki makes obvious the claimed invention. As such, the rejections are considered to be proper.